

Read Again Survey

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Read Again Survey Report

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### Abstract

In order to obtain information needed for the development of Read Again, a relevant braille reading program for adventitiously blind people, a survey of the target population was conducted. An analysis of the data submitted by 200 respondents to a questionnaire revealed great diversity in age, duration of blindness, frequency of braille instruction, amount of instruction time, duration of braille instruction, amount of braille known, and braille reading goals which tended to be lesser than their former print reading habits. There was very little concensus of opinion on what words other than colors or numbers are most important and useful in braille.

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Read Again Survey Report

As plans were being made to begin work on Read Again, a relevant braille reading program for adventitiously blind people, some areas were discovered in which more information was required. A survey of the target population seemed to be the solution. This is a report of the survey that was made.

Agency Participation

Of the 20 agencies for the visually handicapped from across the country which were contacted initially, 13 expressed an interest and were sent forms in either braille and/or print to complete. Responses included in the survey represent the following 11 agencies for the visually handicapped:

1. Arkansas Enterprises for the Blind, Inc.
2. California Orientation Center for the Blind
3. Colorado Services for the Blind or Deaf
4. Illinois Department of Rehabilitative Services
5. Kansas Services for the Blind
6. Kentucky Department for the Blind
7. Maryland Public Schools (Prince George's County)
8. Maryland School for the Blind
9. Missouri School for the Blind

10. New Jersey Commission for the Blind
11. Texas Commission for the Blind

#### Respondents

Read Again Survey forms were developed to provide additional information to be used in the development of the Read Again Program. The final form consisted of 10 questions. A print copy of the form is attached. A sample form was sent to participating agencies, and they were asked to indicate the number of braille and/or print forms they would like to have sent to complete. Agencies were encouraged to have someone available to help the respondents record their answers when necessary. From the 225 forms returned, 199 were found to be complete and useable. Thirteen of the returned forms were incomplete and 13 other forms were filled out by people who did not meet the criteria of adventitious blindness after learning to read print. To make an even 200 respondents for this survey, one additional form was completed by a person who met the criteria.

#### Analyses of Data

Data from the survey forms were entered on a computer which was programmed to itemize, total, average, and compute standard deviation for the responses entered for each question. Some questions, particularly the open-ended questions, required additional manual analyses.

## Results

In this section each survey question is reproduced followed by a table showing the analysis of data. Additional information and/or a brief discussion of the results may follow each table.

### 1. How old are you?

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Insert Table 1 about here

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Responses indicate that 90.0% of the adventitiously blind population learning braille are between the age ranges of 20-29 years and 70-79 years. Each of the age groupings within this range represented 10% or more of all the respondents with the three largest groups being the 20-29 year olds (20.5%), the 30-39 years olds (19.9%), and the 60-69 year olds (17.5%).

### 2. How long has it been since you lost your sight?

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Insert Table 2 about here

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Responses to how long the respondents had been blind varied greatly from 1 month to 660 months, an enormous range of 54 years and 11 months (11.5%), 24 months (11.0%), and 60 months (8.0%). Since all of these figures are evenly divisible by 12, the number of months in a year, this indicated that most respondents rounded off the amount of time since they lost their sight to the nearest year before responding. A more meaningful way of examining these responses, which also includes the more exact responses, seems to be to look at quartiles. Eighteen months is at the first quartile ( $Q_1$ ), 36 months is at the second quartile ( $Q_2$ ), and 72 months is at the third quartile ( $Q_3$ ). This means that 25% of the respondents were learning braille within 1 1/2 years from the time they lost their sight; 50%, within 3 years; and 75%, within 6 years.

3. How often do you have braille instruction?

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Insert Table 3 about here

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Respondents also indicated quite a variation in the frequency of braille instruction. The four most frequently given answers to this question were two times a month (33.5%), weekly (24.0%), daily (15.5%), and monthly (11.5%).

4. How much instruction time do you have in each session?

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Insert Table 4 about here

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Table 4 shows 68% of the responses between 45 minutes and 75 minutes. This is about the same as the length of most college classes and probably fits the adult attention span well. Again there is considerable variation with 11.5% of the respondents having less than 45 minutes of instruction time and 20.5% having more than 75 minutes of instruction time.

5. How long have you been learning braille?

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Insert Table 5 about here

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Great diversity is shown in the responses to this question indicating that people had been learning braille from 1 week to 364 weeks with no more than 14.0% giving the same response, 52 weeks, at the time of the survey. The responses of 13 weeks, at the first quartile, and 104 weeks were next in frequency with 6.5% each. A comparison of the median (30.0 weeks), the mode (52.0 weeks), and

the mean (44.2 weeks), with a standard deviation of 50.7 weeks, all indicate great diversity in the amount of time people had been learning braille at the time of this survey.

6. How much braille do you know now?

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Insert Table 6 about here

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Additional information given under "Other" included references to portions of the alphabet only, miscellaneous reading skills, Nemeth code, additional contractions and punctuation, braille writing, music code, and certification.

Almost all respondents, 94.5%, knew the alphabet or at least some portion of it, but only 21.5% had learned the final letter contractions at the time of the survey. By ordering the frequency of responses as shown, a kind of learning sequence emerges, beginning with the alphabet and numbers and ending with the initial and final letter contractions.

7. What kinds of material would you like to be able to read in braille?

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Insert Table 7 about here

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Additional kinds of materials which it would be desirable to be able to read in braille were cited by the respondents as follows: notes taken, shopping lists, bills to be paid, measuring cups, sheet music, references, maps, programs (concert, circus, etc.), elevators, and speeches.

The braille reading goals of the majority of the 200 respondents were addresses, telephone numbers, labels, names, calendars, and recipes. Only half the people (50.5%) wanted to be able to read books.

When respondents cited labels, books, instructions, magazines, or games as braille reading goals for question 7, they were asked to specify the kinds. The responses are given by frequency and alphabetically when there is no difference in frequency.

Labels. Kinds of labels cited were foods and spices (canned and packaged goods); clothing (colors, bedding, thread, size); household organization (personal records, important papers, business records, addresses, mailbox, files); cassettes; records; prescriptions and medicines; books; laundry and cleaning agents; computer disks; toiletries; and appliances.

Books. Kinds of books cited were fiction (novels, mysteries, romances, westerns, science fiction); nonfiction (educational and texts, biographies and autobiographies, recipes and cookbooks, history, sports, medical, health and nutrition, reference, archeology, technical

and professional, psychology, current affairs, chemistry, cars, animals, instructions, electronics), and religious books and the Bible--the book referred to specifically by title by the most people surveyed.

Instructions. Kinds of instructions were appliances and equipment (operating and assembling, stereo and radio, computer, microwave oven, talking books, and fishing gear); cooking (prepackaged mixes and cans); crafts (sewing, patterns, and crocheting); games and school work (textbooks and tests).

Magazines. Kinds of magazines were family (Better Homes and Gardens, Good Housekeeping, Woman's Day, Ladies Home Journal, Family Circle, Parents, McCalls, House Beautiful, Southern Living, Louisiana Life, and Farmstead); news (Time, Newsweek, New York Times, Current Events, News, Junior Scholastic, My Weekly Reader, and newsletters); technical (electronics, Computer, Omni, Science, math, auto repair, stereo equipment, tool repair, Popular Mechanics, and engineering); personality (People, Ebony, Jet, Life, and Star); sports (Sport, and Sports Illustrated, fishing, Easy Rider); Reader's Digest; magazines for the visually handicapped (Matilda Ziegler and Our Special); religious (Our Daily Word); Prevention; adult (Playboy and Cosmopolitan); social studies (National Geographic and Smithsonian); Mother Earth News; crossword puzzle; movie; Psychology Today; crafts; and westerns.

Games. Kinds of games were cards (Uno and Pinochle); board (Scrabble, Monopoly, Bingo, Trivial Pursuit, Sorry, Tic Tac Toe, and Checkers); word (Password, word associations, and crossword puzzles); video (Pac Man); children's (Dominoes); and dice.

8. For what purpose would you most like to use braille?

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Insert Table 8 about here

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Respondents also cited the following other purposes for learning braille reading: to improve self-image, for personal satisfaction, and for mental stimulation.

Responses to this question closely parallel those given to question 7 with reading required in the home ranking first. The low ranking given school work for both questions probably reflects the age of the population. The even lower ranking for orientation and mobility probably indicates either a lack of independence in travel or no need for braille reading with the travel presently being undertaken.

9. What words, other than colors and numbers, are the most important and useful for people to be able to read in braille?

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Insert Table 9 about here

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The following important categories of words were also cited in response to this question: emergency words, words on prescriptions, labels for stove dials, directional words, cooking terms, restroom labels, microwave settings, elevator labels, labels for foods and spices, and labels for games--playing cards.

Only about 11.0% of the 200 respondents seemed to understand and respond appropriately with specific words to the question: "What words, other than colors and numbers, are the most important and useful for people to be able to read in braille?" Many (36.5%) listed categories of words without giving specific words. Others (51.5%) just stated that they found this question confusing or gave no answer at all. Still others thought blind people should all be able to read all words.

10. What kinds of reading did you do before you lost your sight?

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Insert Table 10 about here

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The kinds of reading people did before they went blind (question 10) were almost as varied as the kinds of reading they aspire to do

now in braille (question 7) with a few notable differences. Before they lost their sight most did not mention reading things like names, addresses, calendars, games, or instructions. This kind of reading was probably just taken for granted when they could see, but now that they cannot see it has taken on new importance.

A comparison of the percentage of responses for each of the major categories cited as former reading habits in print (question 10) with their counterpart goals for braille reading (question 7) reveals that in every area except games and instructions a larger percentage of responses was given for the former reading habit than for the corresponding braille reading goal. Because of this, it was thought that a comparison of each individual respondent's reading goals in braille with his or her reading habits in print might prove interesting. To conduct such a comparison, each individual's responses to question 10, former reading habits in print, were compared with the same individual's responses to question 7, reading goals in braille. Because responses to the two questions were expressed in different formats and responses to question 10 did not seem to be as inclusive, it was necessary for the investigator to make comparisons based primarily on books and magazines since they tended to appear in both lists and probably indicate a certain amount of reading. This information is shown in Table 11.

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Insert Table 11 about here

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Although 44% of the respondents had lesser goals for reading braille than what they had been reading in print, their goals might very well increase as their proficiency in braille increases. At least initially, many of these people were not interested in reading much in braille. Other people who used to read books and magazines discovered talking books and found that medium suited their reading needs. In the second largest group, representing 43.0% who had the same reading goals as when they could see, some never did read books and magazines and had no desire to start. Others were avid readers and were anxious to be able to read again. The 5% who wanted to read more in braille than they had in print were not just trying to better themselves but had generally not been able to read print very well because of impaired vision. For these people braille might open up the world of reading.

Comments and Suggestions of Survey Respondents

Concerning Learning Braille

General Philosophy

"Everyone who can't see should learn braille--it helps the memory."

"Learning braille is a stimulus--it gives a sense of accomplishment."

"I am grateful that I learned braille. It is very helpful and useful for me, and I just don't see how I ever got along without it."

"Don't push everyone into learning the whole system."

"Practice your braille!"

#### Size and spacing

"For older people regular braille is very small."

"Make more jumbo braille available."

"Books need to have lines farther apart."

#### Contractions

"More contractions would be helpful."

"Use more contractions."

"Inconsistencies in braille program should appear in its uncontracted form."

#### Punctuation

"Think about leaving out punctuation until after the whole alphabet is learned."

"As a newly blinded adult who has completed Grade I Braille and is only interested in using braille for names, phone numbers, and labels, I do not feel the need for punctuation marks except for the hyphen which is used in phone numbers. The number sign is important, but the capital sign is not necessary."

"Do away with punctuation in American braille."

"Change the capital mark to a period."

Methods and materials

"Learn the entire alphabet before you go to numbers for better concentration and less confusion. That way you can establish more self-confidence and have more repetition of all previously learned letters in each lesson."

"In the new braille textbook have the rule with the lesson rather than having to refer to another page for the rules."

"Perhaps you could include more practice pages for each letter."

"Put a braille chart with all the signs in the front of the book."

Literature

"Make stories adult."

"We're not morons; please upgrade the stories."

"There is no transition from the corny stories at the end of the book to the working world."

"Make stories more believable, normal regular adult reading."

"The new book should contain interesting stories."

"Use technical material that is too ambiguous when done on tape, like math texts."

"The names in the stories are strange."

"Use up-to-date names and phrases."

"Update language to normal conversational words."

"In using the Illinois Series, it would be much easier to learn if the sentences made sense."

"Include descriptions of nature."

Miscellaneous

"Is there a way to keep the dots from getting mashed?"

"The F's, J's, and H's [What happened to D's?] are too similar and confusing."

"I'd like a braille house with all items marked in braille."

These comments and suggestions given concerning learning braille are interesting. Some of the comments have more to do with the braille code itself under the Braille Authority of North America (BANA) than with our development of Read Again. Some comments get at long-standing controversies involving such things as the use of jumbo braille, capitalization, spacing, and the number of contractions to include. In some cases dissatisfaction with the present materials available for teaching braille to older students is shown and specific weaknesses of these materials are pointed out.

Implications

The information from this survey has many implications for the development of Read Again, a relevant braille reading program for adventitiously blind people. Implications suggested by the results

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of each survey question will be presented, referring to each question on the survey by number.

1. The diversity of ages represented in the target population means that Read Again will need to appeal to and meet the needs of a variety of people, primarily adults. Some will be interested in learning braille to use in their employment or to further their education. Others will already be retired and will be interested in braille for recreation or to help them around the house.
2. Although the time between the onset of blindness and the initiation of braille instruction may vary greatly, half of the adventitiously blind people will probably be taking braille within 3 years of the time they lose their sight. Therefore, Read Again needs to be written so that people who are in the process of adjusting to living with blindness and who probably do not know much about the kinds of resources that are available to them can learn braille at their own rate of speed.
3. The diversity in the frequency of instruction will mean that many students will need Read Again materials for practicing braille when the instructor is not available a few students will have daily instruction and will need meaningful materials

suitable for this type of instruction.

4. The diversity in the amount of instruction time in each braille reading session means that Read Again lessons will also have to be flexible enough to be able to be effectively presented in a number of differing time frames.
5. At the time the survey was conducted respondents had been learning braille for greatly differing amounts of time. Although there is no way of knowing from the responses to this question how long it takes people to learn to read braille, it can be said that the amount of time certainly varies greatly with the individual. Therefore, Read Again must try to accomodate both fast and slow learners and those in between.
6. The sequence of learning braille suggested by ordering the responses to this question differs little from the sequence of braille learning usually recommended for blind children. The biggest exception to this is the possible earlier introduction of the group of short-form words to adults than to children. This is possible since adults who already know how to read and spell in print and who know the braille alphabet likely would not find these words to be nearly as difficult as children who have never read or spelled these

words before. The survey implies that when sequencing the material for Read Again either of these sequences could be used effectively.

7. The first five braille reading goals identified by respondents--addresses, telephone numbers, labels, names, and calendars--could be accomplished as soon as students have learned braille letters and numbers. This knowledge would be sufficient for playing most games, too, although game playing was a lower priority goal. The remainder of the goals--recipes, books, instructions, magazines, school work--and the additional goals listed by the respondents generally would require a more advanced knowledge of braille. As braille students gain the knowledge to read these things, it would certainly add motivation to the program if Read Again could appropriately furnish activities which would incorporate these braille reading goals. Information from the survey on the kinds of labels, books, instructions, magazines, and games desired would be helpful in determining the specific content that should be included in Read Again to interest most readers.
8. The responses to this question produced similar information to those provided in question 7 with some additional uses

for braille given here which might be used to motivate some students. Perhaps the most interesting responses to this question are those cited as other purposes for learning braille. These address the psychological gains of learning braille--improved self-image, personal satisfaction, and mental stimulation--and could be used to encourage students working in Read Again.

9. Although 59 specific words and 10 categories of words were suggested from this survey as being very helpful in braille, the poor response and little concensus found give little useful information for Read Again. Maybe this is such an individual matter that there is no one set of words that will meet the needs of each and every person, but rather instructors may have to generate a specific set of words to meet the individual needs of each student.
10. Because many of the people who used to read books and magazines, in print have lesser goals in braille, the Read Again program needs to build up confidence in new braille readers as they move through the program so that as they meet with success on the beginning levels, they are motivated to continue through the program and finally to attempt to read books, magazines, and other reading matter in braille.

Table 1

Age of Respondents

Ranges in years	% of responses
10-19	5.5
20-29	20.5
30-39	19.0
40-49	13.0
50-59	10.5
60-69	17.0
70-79	10.0
80-89	4.5

Table 2

Duration of Blindness

No. of months	% of responses	No. of months (cont.)	% of responses (cont.)
1	.5	24	11.0
3	.5	30	1.5
4	1.5	31	.5
5	.5	Q <sub>2</sub> →36	14.5
6	2.5	42	.5
7	.5	48	7.5
9	1.5	54	1.0
10	1.0	60	8.0
11	1.0	69	.5
12	11.5	Q <sub>3</sub> →72	2.0
14	.5	77	.5
16	1.0	84	2.5
17	.5	96	5.0
Q <sub>1</sub> →18	5.0	108	.5
20	.5	120	6.0
21	.5	144	1.0
22	.5	156	1.5

(table continues)

Table 2

Duration of Blindness

No. of months	% of responses	No. of months (cont.)	% of responses (cont.)
168	.5	240	2.0
180	1.5	348	.5
192	.5	480	.5
228	.5	660	.5

Table 3

Frequency of Braille Instruction

Instruction schedule	% of responses
Daily	15.5
4 times a week	5.0
3 times a week	.5
2 times a week	5.5
Weekly	24.0
2 times a month	33.5
Monthly	11.0
Other	5.0

Table 4

Amount of Instruction Time

No. of minutes	% of responses
0	.5
15	.5
30	9.5
40	1.0
45	10.0
Q <sub>1</sub> →50	6.5
Q <sub>2</sub> & Q <sub>3</sub> →60	48.5
75	3.0
80	1.0
90	16.0
120	3.0
150	.5

Note.	Median	60.00 minutes
	Mode	60.00 minutes
	Mean	62.12 minutes
	Standard Deviation	21.21 minutes

Table 5

Duration of Braille Instruction

No. of weeks	% of responses	No. of weeks (cont.)	% of responses (cont.)
1	.5	16	3.0
2	2.0	18	.5
3	2.0	19	.5
4	1.0	20	5.5
5	3.0	22	.5
6	2.0	24	3.0
7	.5	25	1.5
8	3.5	26	5.5
9	.5	28	1.5
10	3.0	Q <sub>2</sub> →30	3.0
11	1.0	32	1.5
Q <sub>1</sub> →12	6.5	36	2.5
13	.5	37	.5
14	1.0	38	.5
15	.5	40	4.5

(table continues)

Table 5

Duration of Braille Instruction

No. of weeks	% of responses	No. of weeks (cont.)	% of responses (cont.)
44	1.5	100	.5
50	4.0	104	6.5
Q <sub>3</sub> →52	14.0	110	.5
56	.5	130	.5
60	1.5	156	1.0
67	.5	200	.5
71	.5	208	1.0
72	.5	312	1.0
75	1.0	364	.5
78	2.5		

Note. Median 30.00 weeks

Mode 52.00 weeks

Mean 44.20 weeks

Standard Deviation 50.70 weeks

Table 6

Amount of Braille Now Known

Categories	% of responses
Alphabet	94.5
Numbers	86.0
Words--full spelling	76.5
Common punctuation	65.0
Alphabet words	49.0
One-cell whole words	44.0
One-Cell part words	41.0
Short-form words	32.0
Lower signs	32.0
Initial letter contractions	26.0
Final letter contractions	21.5
None	3.0

Table 7

Braille Reading Goals

Categories	% of responses
Addresses	83.5
Telephone numbers	83.5
Labels <sup>a</sup>	73.5
Names	63.5
Calendars	62.5
Recipes	56.5
Books <sup>a</sup>	50.0
Instructions <sup>a</sup>	42.5
Magazines <sup>a</sup>	39.0
Games <sup>a</sup>	33.0
School work	25.0

Note. <sup>a</sup>additional information about the kinds identified comes later in this section.

Table 8  
Purposes for Learning Braille

Categories	% of responses
In my home	83.5
Telephone numbers	78.0
Recreation	54.5
Profession	41.5
Correspondence	36.0
School work	30.5
Orientation and mobility	21.0

Table 9

Important and Useful Words

Specific words	% of responses	Specific words (cont.)	% of responses (cont.)
Up	45.5	Front	9.1
Down	40.9	Beat	9.1
Stop	40.9	Bake	9.1
Men	31.8	High	9.1
Women	31.8	Medium	9.1
Off	31.8	Low	9.1
On	31.8	Forward	9.1
Hot	31.8	Backward	9.1
Cold	31.8	Open	9.1
In	27.3	Close	9.1
Out	27.3	Enter or Entrance	9.1
Start	27.3	Emergency	4.5
Danger	13.6	Caution	4.5
Exit	13.6	Oven	4.5
Back	13.6	Stir	4.5
Left	13.6	Broil	4.5
Right	13.6		

(table continues)

Table 9

Important and Useful Words

Specific words (cont.)	% of responses (cont.)	Specific words (cont.)	% of responses (cont.)
Add	4.5	Vertical	4.5
Touch	4.5	Diagonal	4.5
Boys	4.5	Turn	4.5
Slow	4.5	Around	4.5
Fast	4.5	Push	4.5
Listen	4.5	Pull	4.5
Love	4.5	Press	4.5
Wait	4.5	Lift	4.5
Round	4.5	Over	4.5
Oval	4.5	Under	4.5
Rectangle	4.5	Alarm	4.5
Square	4.5	This way	4.5
Horizontal	4.5	Poison	4.5

Note. N = 22, the total number of people actually responding to this question

Table 10

Comparison of Print Reading Habits with Braille Reading Goals as a Whole

Categories	% of responses to question 10, print reading habits	% of responses to question 7, braille reading goals
Books	60.0	50.0
Magazines	45.0	39.0
Newspapers	38.5	----
School Work	15.0	25.0
Instructions	4.0	42.5
Games	----	33.0

Table 11

Comparison of Print Reading Habits in with Braille Reading Goals as Individuals

Goals	%
Lesser	44.0
Same	43.0
More	5.0
Different	4.5
No response	3.5



READ AGAIN Survey Questionnaire

Agency \_\_\_\_\_

Client/Student \_\_\_\_\_

Please answer the following questions as completely as possible. You may need help with reading and recording your answers.

1. How old are you?

10-19       40-49       70-79  
 20-29       50-59       80-89  
 30-39       60-69       90-99

2. How long has it been since you lost your sight? \_\_\_\_\_

3. How often do you have braille instruction? Please check the most appropriate answer.

daily       weekly  
 4 times a week       2 times a month  
 3 times a week       monthly  
 2 times a week       other Please explain.  
\_\_\_\_\_

4. How much instruction time do you have in each session? \_\_\_\_\_ minutes

5. How long have you been learning braille? \_\_\_\_\_ weeks

6. How much braille do you know now? Please check all appropriate answers.

none  
 alphabet  
 numbers  
 words in full spelling (man, girl, puppy, etc.)  
 common punctuation and composition signs (letter sign, capital sign, etc.)  
 alphabet words (but, can, do, etc.)

one-cell whole words (and, child, this, etc.)  
 one-cell part words (and, ch, ing, etc.)  
 lower signs (ea, com, his, etc.)  
 initial-letter contractions (day, upon, cannot, etc.)  
 final-letter contractions (ound, ment, ally, etc.)  
 short-form words (about, braille, rejoicing, etc.)  
 other Please explain. \_\_\_\_\_

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7. What kinds of material would you like to be able to read in braille?

Please check the most appropriate answers.

addresses  
 books If so, what kinds? \_\_\_\_\_  
 calendars  
 games If so, which ones? \_\_\_\_\_  
 instructions If so, what kinds? \_\_\_\_\_  
 labels If so, which ones? \_\_\_\_\_  
 magazines If so, which ones? \_\_\_\_\_  
  

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 names  
 recipes  
 school work  
 telephone numbers  
  

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8. For what purpose would you most like to use braille? Please check as many answers as you feel are appropriate.

for correspondence  
 in my home  
 for orientation and mobility  
 in a profession  
 for recreation  
 for school work  
 other Please explain.  
 telephone numbers

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9. What words, other than colors and numbers, are the most important and useful for people to be able to read in braille? Please list.

10. What kinds of reading did you do before you lost your sight?  
Please list.

Comments or suggestions:

